

REMARKS and ARGUMENTS

The present application was filed on September 12, 2003 with claims 1 - 19. Claims 5, 15, and 19 have been cancelled herein. By this amendment, claims 1, 11, 12, and 13 have been amended. Reconsideration is respectfully requested.

Claim Rejections - 35 USC § 102

Claims 1, 6, 9, 10 - 13, 15 - 17, and 19 were rejected under 35 U.S.C. §102(e) as being anticipated by *Karau* '166. Applicant respectfully traverses rejection to claims 1, 6, 9, 10 - 13, 15 - 17, and 19 based upon *Karau* '166. Claim 1 has been amended to more fully claim the patentable subject matter of the invention and distinguish it from *Karau* '166. Applicant respectfully traverses a rejection to newly amended claim 1 based upon *Karau* '166.

Newly amended claim 1 sets forth a method for controlling an internal combustion engine, comprising measuring an ionization signal of at least one combustion event during initial engine operation and determining at least one index of combustion quality based upon the ionization signal. The method adjusts fuel injector pulsewidth during the initial engine operation based upon the index of combustion quality.

In contrast to newly amended claim 1, *Karau* '166 sets forth a method of identifying a cylinder combustion sequence of an internal combustion engine, to reliably resolve ambiguity between cylinder stroke and crankshaft position to enable individual cylinder fuel and spark control (Col. 1, lines 24 - 27). Specifically, *Karau* '166 does not adjust fuel injector pulsewidth during the initial engine operation based upon the index of combustion quality. Therefore, claim 1 is patentably distinguishable from *Karau* '166.

Claims 6, 9, and 10 are ultimately dependent upon now allowable claim 1, and therefore are allowable for the same reasons as set forth with respect to claim 1. Claims 11, 12, and 13 are allowable for the same argument as set forth with respect to claim 1. Claims 15 - 17 and 19 are ultimately dependent upon now allowable claim 13, and therefore are allowable for the same reasons as set forth with respect to claim 13.

Claim Rejections - 35 USC § 103

Claims 2-5, 7, 8, 14, and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Karau* '166. It was stated that *Karau* '166 disclosed a means for detecting/measuring an ionization signal of at least one combustion event in at least one cylinder of the internal combustion engine during initial engine operation, determining at least one index of combustion quality based upon the ionization signal and, compensating at least one engine control parameter during the initial engine operation based upon the at least one index of combustion quality. The examiner stated it would have been an obvious choice of mechanical design because one skilled in this art is familiar with basic control mechanic (sic) and normally has the laboratory test facilities. To optimize or select the suitable devices/conditions would be within the ability of ordinary skilled in this art.

Applicant respectfully traverses the rejection of claims 2-5, 7, 8, 14, and 18 under 35 U.S.C. § 103(a) as being unpatentable over *Karau* '166. As the examiner is well aware, for a rejection based upon 35 U.S.C. § 103(a) to prevail, the examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e. that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combine references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 USPQ2d 494, 496 (CCPA 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 USPQ2d 1016, 1023 (Fed. Cir. 1996).

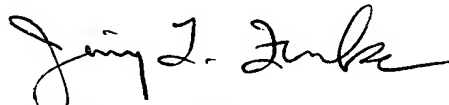
Applicant respectfully traverses any rejection of claims 2-5, 7, 8, 14, and 18 in view of *Karau* '166 because *Karau* '166 does not contain some suggestion or incentive that would have motivated the skilled artisan to modify the reference. Specifically, *Karau* '166 does not contain an incentive to motivate the skilled artisan to adjust fuel injector pulsewidth during the initial engine operation based upon the index of combustion quality. As previously stated, *Karau* '166 is concerned with identifying a cylinder combustion sequence of an internal combustion engine, to reliably resolve ambiguity between cylinder stroke and crankshaft position to enable individual

cylinder fuel and spark control (Col. 1, lines 24 – 27). The fuel control and spark control of Karau '166 may be enabled by an index of combustion quality, but they are not based upon an index of combustion quality. Therefore, claims 2-5, 7, 8, 14, and 18 are patentably distinguishable from *Karau '166*.

Conclusion

For all of the above reasons, claims 1-4, 6-14, and 16-18 are patentably distinguishable over the prior art cited thereagainst. Reconsideration and allowance is respectfully requested. A Notice of Allowance is earnestly solicited. If the Examiner believes that a telephone interview would be beneficial, please contact the undersigned at the number listed. Please charge any necessary fees, including any extension of time, or any other fee deficiencies to Delphi Technologies, Inc., Deposit Account No. 50-0831.

Respectfully submitted,



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